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SERVICE DATE – LATE RELEASE JUNE 30, 2008

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SURFACE TRANSPORTATION BOARD

DECISION

STB Docket No. 42100

E.I. DUPONT DE NEMOURS AND COMPANY

v.

CSX TRANSPORTATION, INC.

The Board finds that the defendant railroad has market dominance over two movements at issue and that the challenged rates for those movements are unreasonably high. The railroad is directed to establish new rates that do not exceed the maximum reasonable rates prescribed herein and to pay reparations (with interest) to the shipper.

Decided: June 27, 2008

**BY THE BOARD:**

By an amended complaint filed on October 30, 2007, E.I. du Pont de Nemours and Company (DuPont) challenges the reasonableness of rates charged by CSX Transportation, Inc. (CSXT) for the movement of chlorine by tank car from: (1) Niagara Falls, NY, to New Johnsonville, TN, a distance of approximately 881 miles (Niagara Falls movement); (2) Natrium, WV, to New Johnsonville, a distance of approximately 723 miles (Natrium movement); and (3) Niagara Falls to Carneys Point, NJ, a distance of approximately 588 miles (Carneys Point movement). DuPont seeks relief pursuant to the simplified procedures set forth in Simplified Standards for Rail Rate Cases, STB Ex Parte No. 646 (Sub-No. 1) (STB served Sept. 5, 2007) (Simplified Standards).<sup>1</sup>

DuPont has elected to proceed under the Three-Benchmark method, under which the total available rate relief is limited to \$1 million over a 5-year period. In its opening evidence, CSXT seeks to relitigate various methodological issues related to the application of the Three-Benchmark approach. CSXT Open at 12-18. However, those arguments were presented and rejected in Simplified Standards. CSXT may not collaterally attack Simplified Standards in this proceeding.

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<sup>1</sup> Pet. for review docketed, No. 07-1369, et al. (D.C. Cir. Sept. 18, 2007).

Based on the record presented, we find that the rates for the Niagara Falls movement and the Carneys Point movement are unreasonably high under the Three-Benchmark method. Accordingly, maximum reasonable rates for those movements are prescribed and reparations (with interest) are awarded to DuPont.

### MARKET DOMINANCE

We can consider the reasonableness of a challenged rail rate only if the carrier has market dominance over the traffic involved. 49 U.S.C. 10707. Market dominance is “an absence of effective competition from other rail carriers or modes of transportation for the transportation to which a rate applies.” 49 U.S.C. 10707(a). Where a railroad has market dominance, its transportation rate must be reasonable. 49 U.S.C. 10701(d)(1), 10702.

There are two components to the Board’s market dominance inquiry. The first component is quantitative. The statute establishes a conclusive presumption that a railroad does not have market dominance if the rate it charges produces revenues that are less than 180% of its variable costs<sup>2</sup> of providing the service. 49 U.S.C. 10707(d)(1)(A). Thus, the 180% revenue-to-variable cost (R/VC) ratio is the floor for regulatory scrutiny of rail rates. That statutory 180% R/VC level is also the floor for any rate relief. See Burlington N.R.R. v. STB, 114 F.3d 206, 210 (D.C. Cir. 1997).

If the quantitative threshold is met, the Board moves to the second component, a qualitative analysis. In this analysis, we determine whether there are any feasible transportation alternatives that could be used for the issue traffic. The Board considers both intramodal competition (from other railroads) and intermodal competition (from other modes of transportation such as trucks, transload arrangements, barges or pipelines).

Here, the parties agree that CSXT’s R/VC ratios exceed the 180% threshold for all three chlorine movements. Therefore, DuPont has satisfied the quantitative prong of the market dominance inquiry. The parties disagree, however, on whether the qualitative market dominance test has been met.

In the qualitative market dominance inquiry, the complainant bears the burden of establishing the absence of effective competition from other rail carriers or modes of transportation for the traffic to which the challenged rate applies.<sup>3</sup> See 49 U.S.C. 10707. Even where an alternative mode or modes of transportation exists, a complainant can establish market

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<sup>2</sup> Variable costs are those railroad costs which vary with the level of output.

<sup>3</sup> See CSX Corp. et al. – Control – Conrail Inc. et al., 3 S.T.B. 196 (1998); Government of the Territory of Guam v. Sea-Land Service, Inc., American President Lines, Ltd., and Matson Navigation Company, Inc., STB Docket No. WCC-101, slip op. at 6 (STB served Feb. 2, 2007) (“In rail cases, because a finding of market dominance is a threshold jurisdictional requirement, we place the burden of proof on the shipper to show that there is not effective competition.”).

dominance by demonstrating that the alternate modes of transportation are not effectively constraining the carrier's ability to increase the rates of the issue traffic.<sup>4</sup>

Here, the parties agree that there is no intramodal competition for any of the issue movements, because CSXT is the only rail provider at all of the origins. Both parties also agree that intermodal competition from trucks does not exist due to chlorine's status as a toxic-inhalation-hazard (TIH). The parties disagree on the extent to which there is effective intermodal competition in the form of barge transportation for the Natrium movement.

After examining the evidence submitted by the parties, we find that there is effective competition for the Natrium movement in the form of intermodal competition via barge. Consequently, we will dismiss that portion of the complaint. By contrast, we find that CSXT is market dominant on the Niagara Falls movement and the Carneys Point movement.

### Natrium Movement

#### 1. Position of the Parties

DuPont's New Johnsonville facility can accept chlorine by barge and chlorine can embark from the origin at Natrium by barge. DuPont ships 90% of its chlorine over this lane via barge.<sup>5</sup> Thus, there is clearly a transportation alternative that DuPont uses for the issue movement. The question here is whether barge transportation provides effective competition for rail transportation under the circumstances of this case.

DuPont ships the overwhelming majority of its chlorine for this movement by barge because it has determined that barge is the safest mode of transportation for chlorine (followed by rail, then truck). However, DuPont indicates that it is forced to use rail for the Natrium movement when there is no barge capacity available. DuPont argues that, for those occasions when it uses rail for the Natrium movement, replacing the rail service with barge service is not an option due to the lack of barge capacity.<sup>6</sup>

DuPont reports that the barges it uses to ship chlorine to New Johnsonville are supplied by, chlorine manufacturer PPG Industries. DuPont asserts that it is unaware of any commercial barge capacity that could supplement the PPG barge fleet.<sup>7</sup> According to DuPont, given the lack of additional barge capacity, all chlorine that can move by barge already does and whatever residual traffic remains is then shipped by rail on CSXT. DuPont maintains that, as long as there is sufficient barge capacity, DuPont will not ship more chlorine by rail, even if CSXT were to

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<sup>4</sup> See Market Dominance Determinations, 365 I.C.C. 118, 129 (1981) ("Effective competition for a firm providing a good or service means that there must be pressures on that firm to perform up to standards and at reasonable prices, or lose desirable business.").

<sup>5</sup> DuPont Open. at 13

<sup>6</sup> Id. at 13.

<sup>7</sup> DuPont Open. at 13.

offer lower rates than barges, because of the chlorine risk profile.<sup>8</sup> DuPont cites its internal policy, which requires it to use the lowest risk option available for chlorine shipments.

In response, CSXT argues that the undisputed fact that DuPont ships 90% of the issue traffic via barge demonstrates that, under our precedent, CSXT does not have market dominance over this traffic.

## 2. Analysis

We begin our analysis with the uncontested fact that DuPont ships 90% of its chlorine between Natrium and New Johnsonville via barge. It is generally unlikely, but not impossible, that a railroad can exercise market dominance when another mode accounts for a large percentage of the movements.<sup>9</sup> For an alternative mode to provide effective competition, it need not necessarily be “capable of handling substantially all or even a majority of the subject traffic.”<sup>10</sup> What we seek to determine is whether the alternative mode places “considerable competitive pressures” on the defendant railroad.<sup>11</sup>

DuPont’s chief argument is that existing barge capacity is insufficient to handle a recurring 10% of its chlorine traffic, and that barge capacity cannot be increased to satisfy its total demand, resulting in a subset of chlorine traffic for which barge does not represent effective competition. However, DuPont has failed to support that argument with evidence. DuPont states that it is “unaware” of any additional sources for increasing barge capacity, but it has not detailed its efforts to either investigate or quantify the possibility.<sup>12</sup> Rather DuPont states, without elaboration, that it determined that increasing barge capacity was not a “realistic possibility” following discussions with its supplier.<sup>13</sup> DuPont has provided no evidence regarding whether the barge capacity constraints are long-term, whether barge capacity can be increased at some price, and whether that price would be economically viable for DuPont given the risk associated with chlorine. Because DuPont bears the burden of establishing the absence of effective competition, we will not simply assume that if barge capacity could be increased DuPont would have done so already.

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<sup>8</sup> DuPont Reb. at 16 fn. 9.

<sup>9</sup> See Aluminum Assn. et al. v. ACY R. Co., et al., 367 ICC 475, 484 (1983) (finding effective competition where motor carriage accounted for 1/3 of nationwide aluminum movements) (Aluminum Assn.); Consolidated Paper v. Chicago and Northwestern Transportation, 7 I.C.C.2d 330 (1991) (finding effective competition where motor carriage accounted for 55% of issue movement).

<sup>10</sup> Amstar Corp. v. Great Alabama Southern RR, Docket No. 38239S (ICC served Nov. 10, 1987), citing Aluminum Assn., 367 ICC 475, 484 (1983).

<sup>11</sup> Aluminum Assn. at 483-84.

<sup>12</sup> DuPont Open. at 13.

<sup>13</sup> DuPont Reb., Moore V.S. at ¶ 6.

The determination of effective competition typically requires a comparison of the total costs of using alternative modes. By failing to provide sufficient evidence relating to increasing barge capacity, DuPont has not given us the tools to perform that analysis.<sup>14</sup> Moreover, CSXT cited evidence that DuPont has at least discussed with PPG Industries the possibility of increasing or re-allocating barges in order to provide additional capacity for chlorine transportation.<sup>15</sup> Based on this record, we conclude that DuPont has failed to establish what is a central premise of its case – that barge capacity cannot be increased.

We also reject DuPont’s argument that it becomes a captive shipper when its ability to use barge is temporarily hindered due to occasional water-level changes, damaged locks or other physical conditions. These are the sorts of transitory and short-term problems that this agency has long held are insufficient to establish the absence of effective competition.<sup>16</sup>

DuPont also argues that the failure to reach a negotiated settlement with CSXT on a new contract is manifest evidence that CSXT is market dominant on this movement.<sup>17</sup> However, this movement was just one part of a master contract that involved many movements. Negotiations fail for many reasons, and the fact that the parties could not reach a negotiated settlement on this movement is not evidence of market dominance.

Finally, DuPont argues that CSXT’s chlorine pricing policy of “de-marketing” demonstrates an absence of effective competition. CSXT acknowledges that it sets its rates for chlorine traffic based not on profit maximization, but rather on risk avoidance.<sup>18</sup> DuPont claims that this policy eliminates the possibility of effective intermodal competition because CSXT prices in a manner to avoid chlorine carriage altogether and would not adjust that policy regardless of the presence of a competitive alternative.<sup>19</sup>

While we are concerned about carriers’ efforts to de-market chlorine traffic, CSXT’s de-marketing policy does not establish that the carrier is market dominant in this case.<sup>20</sup> As we state

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<sup>14</sup> DuPont also has not introduced evidence comparing the barge rates to the CSXT rates for shipping chlorine on this issue movement. Accordingly, we cannot compare the degree of discrepancy, if any, between the rates for these two alternative modes. Such evidence could have assisted us in determining whether the costs associated with increasing barge capacity would have increased the total costs of using barge beyond a level that can provide effective competition to rail.

<sup>15</sup> CSXT Reply at 7-8, Ex. 6.

<sup>16</sup> See Salt River Project v. United States, 762 F.2d 1053, 1062 (D.C. Cir. 1985) (“We do not believe Congress, in formulating the market dominance inquiry, had in mind situations such as the present in which a particular railroad arguably may have transitory market power.”)

<sup>17</sup> See DuPont Open. at 14.

<sup>18</sup> See CSXT Open. at 7.

<sup>19</sup> See DuPont Open. at 11.

<sup>20</sup> We have announced a public hearing to learn more about new carrier policies

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above, the Board has authority to examine the reasonableness of a carrier's rates only when a complainant demonstrates that there is an absence of effective competition.

In sum, we find that DuPont has failed to demonstrate that CSXT has market dominance on the movement of chlorine from Natrium to New Johnsonville.

#### Niagara Falls Movement

CSXT, which is the only rail carrier that serves the both the origin and the destination, does not dispute that there is a lack of readily available intra- or intermodal competition for this movement.<sup>21</sup> However, CSXT asserts that there is significant product and geographic competition for this movement.<sup>22</sup>

We will not consider CSXT's product and geographic competition argument. In Simplified Standards, we reiterated the Board's well-settled policy not to consider evidence relating to possible product or geographic competition.<sup>23</sup> Thus, we find that CSXT has market dominance with respect to the Niagara Falls movement.

#### Carneys Point Movement

According to DuPont, CSXT is the only rail carrier that serves the origin at Niagara Falls for this movement. DuPont asserts that there is no intermodal competition, and CSXT does not dispute that contention. Therefore, based on the record, we find that CSXT has market dominance with respect to the Carneys Point movement.

### **RATE REASONABLENESS STANDARDS**

Under the Three-Benchmark method, the reasonableness of the challenged rate is addressed by examining the R/VC ratio that is produced by the challenged rate in relation to three benchmark figures, each of which is also expressed as an R/VC ratio. The first benchmark, the Revenue Shortfall Allocation Method (RSAM), measures the average markup over variable

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regarding hazardous materials traffic and how these policies relate to the railroads' common carrier obligation to provide service upon reasonable request. See Common Carrier Obligation of Railroads – Transportation of Hazardous Materials, STB Ex Parte 677 (Sub-No. 1) (STB served June 4, 2008).

<sup>21</sup> See CSXT Reply at 8 (“CSXT does not contend that there are readily available modal transportation alternatives for the issue movement.”).

<sup>22</sup> Id.

<sup>23</sup> Simplified Standards for Rail Rate Cases, STB Ex Parte No. 646 (Sub-No. 1), slip op. at 22 (STB served Sept. 4, 2007); see also Market Dominance Determinations—Product and Geographic Competition, 5 S.T.B. 492 (2001), aff'd sub. nom. AAR v. STB, 306 F.3d 1108 (2002).

cost that the defendant railroad would need to charge all of its “potentially captive” traffic (traffic priced above the 180% R/VC level) in order for the railroad to earn adequate revenues as measured by the Board under 49 U.S.C. 10704(a)(2). The second benchmark,  $R/VC_{>180}$ , measures the average markup over variable cost currently earned by the defendant railroad on its potentially captive traffic. The third benchmark, the  $R/VC_{COMP}$ , is used to compare the markup being paid by the challenged traffic to the average markup assessed on other comparable potentially captive traffic.

Once we select the appropriate comparison group for the  $R/VC_{COMP}$  benchmark(s), each movement in the comparison group is adjusted by the ratio of  $RSAM \div R/VC_{>180}$ . We then calculate the mean and standard deviation of the resulting R/VC ratios (weighted in accordance with the appropriate sampling factors). If the challenged rate is above a reasonable confidence interval around the estimate of the mean for the adjusted comparison group, it is presumed unreasonable and, absent any “other relevant factors,” the maximum lawful rate is prescribed at that boundary level.

### **THREE-BENCHMARK ANALYSIS**

#### **A. $R/VC_{COMP}$ Benchmark**

##### *1. Comparability Factors*

The purpose of the  $R/VC_{COMP}$  benchmark is to use the R/VC ratios of comparable traffic as evidence of the reasonable R/VC levels for traffic of that sort. Comparability is determined by reviewing a variety of factors, such as length of movement, commodity type, traffic densities of the likely routes involved, and demand elasticity (although the comparison group need not have movements with identical demand). Movements with different cost characteristics may be included in the comparison group, because what we are comparing are the mark-ups over variable cost to determine the reasonable level of contribution to joint and common costs for a particular movement. The comparison group should consist of only captive traffic over which the carrier has market power, as the rates available to traffic with competitive alternatives would provide little evidence on the degree of permissible demand-based differential pricing needed to provide a reasonable return on the investment. Thus, no movements priced below the 180% R/VC level may be included in the comparison group.

##### *2. Comparison Group*

Although the parties had more divergent selection factors in their opening submissions, on reply (when the final tender offers were submitted), they agreed on most of the selection criteria. Specifically, in the final tender offers, each party applied the following selection criteria: include only traffic with R/VC ratios above 180%; include only traffic moving in private tank cars; exclude the issue traffic from the comparison group;<sup>24</sup> exclude cross-border

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<sup>24</sup> Although both parties agree to exclude issue traffic from the comparison groups, they disagree on how to do so. DuPont would exclude the issue origin-destination movement from

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movements; include only traffic that is local to CSXT (i.e., no other rail carrier participated in the movement); and include only traffic moving a similar distance.<sup>25</sup> They diverged with respect to commodity type and fuel surcharges.

After examining the proffered comparison groups, we select DuPont's comparison groups for the reasons discussed below.

*a. Commodity Type*

CSXT limits its comparison groups to chlorine movements, while DuPont includes both chlorine and other TIH chemicals in its comparison groups. CSXT argues that, because of the nature of chlorine and the way that it is priced, it is comparable to no other commodity.<sup>26</sup> CSXT maintains that the price for chlorine transportation is driven primarily by risk avoidance and mitigation considerations, not by profit maximization consideration, and that there is no price that CSXT could charge that would justify the risk of moving chlorine. Accordingly, it has engaged in a multi-year effort to raise chlorine rates to (1) discourage unnecessary shipments via CSXT, (2) discourage longer distance shipments via CSXT, and (3) encourage producers and buyers of chlorine to look for alternative products.<sup>27</sup> The railroad represents that, since 1994, it has raised rates for chlorine movements by over 116% percent.<sup>28</sup> For these reasons, CSXT argues that the reasonableness of its pricing of the chlorine movements at issue can only be judged by looking to the rapidly increasing rates it is charging other chlorine movements.

We conclude that a more appropriate comparison group should include all TIH shipments, rather than a narrowly tailored group of chlorine movements alone. CSXT has offered no evidence that chlorine must be handled differently than any other TIH chemical moving in tank cars. Indeed, the Federal Railway Administration and the Pipeline and

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the comparison group for that movement only, whereas CSXT would exclude the issue origin-destination movements from the comparison groups altogether. Whether or not those movements are included does not materially affect the selection of DuPont's comparison groups.

<sup>25</sup> The parties agree generally on how to calculate distance. However, DuPont took the length of haul for the issue movement, rounded to the nearest 50 miles, and then selected movements within a range of 150 miles on each side. CSXT objects to rounding the mileage of the issue movement. Additionally, CSXT uses the actual loaded miles of the issue traffic movement, while DuPont uses the estimated miles from the Waybill Sample. We use the actual length of haul for calculating the issue movement's distance. But the minor rounding dispute is not material. Even if we were inclined to agree with CSXT, we would select DuPont's comparison group in any event because of the more significant differences over the commodity type and role of fuel surcharges.

<sup>26</sup> See CSXT Open. At 6-8.

<sup>27</sup> See CSXT Reply V.S. of Piacente at 4-7.

<sup>28</sup> *Id.* at 4.

Hazardous Materials Safety Administration do not treat the transportation of chlorine differently from the transportation of any other TIH product.<sup>29</sup>

Moreover, CSXT has acknowledged that it now prices chlorine beyond what would otherwise be commercially justifiable, in an effort to induce shippers to use substitutes for chlorine or source it from nearer locations. Accordingly, a comparison group drawn exclusively from traffic that the railroad concedes is being priced to discourage the traffic would not, in our view, provide a reasonable measure of the share of joint and common costs (and thus the maximum R/VC levels) that should be borne by the issue chlorine movements. Chlorine is indeed a dangerous chemical, and accidents involving chlorine expose railroads to litigation risk. But there are many other dangerous chemicals, and we believe that a broader comparison group that includes these other TIH chemicals would provide a more reasonable guide for the contribution to joint and common costs that the movements at issue should bear.

*b. Fuel Surcharge*

DuPont includes both movements where a fuel surcharge was imposed and movements where it was not. CSXT, in contrast, includes only movements where a fuel surcharge was imposed.

CSXT claims that rates without the fuel surcharge were negotiated pursuant to an arrangement under which, due to market and commercial factors, CSXT agreed to forgo a fuel surcharge.<sup>30</sup> CSXT thus argues that, because there are market-based reasons why fuel surcharges exist only on some movements, those same market conditions should be reflected in the comparison group by excluding non-fuel-surcharged movements.<sup>31</sup>

DuPont notes that, in Rail Fuel Surcharges, STB Ex Parte No. 661 (STB served Jan. 26, 2007), the Board concluded that carriers, including CSXT, may have been over-recovering fuel costs on traffic that was subject to a fuel surcharge. DuPont argues that, because of this possible over-recovery, movements with a fuel surcharge ideally should be *excluded* from the comparison groups. But DuPont notes that, if the comparison groups were limited to only movements without a fuel surcharge, then the groups might possibly reflect an under-recovery of fuel costs.<sup>32</sup> Accordingly, DuPont argues that both movements with a fuel surcharge and movements without such a surcharge should be included in the groups, and that together, any over-recoveries and under-recoveries from these movements should be offset.<sup>33</sup>

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<sup>29</sup> See 49 CFR Parts 172, 174, and 209.

<sup>30</sup> CSXT Reb. at 17.

<sup>31</sup> Id.

<sup>32</sup> DuPont also questions whether CSXT was actually forgoing recovery of its fuel costs on movements where no fuel surcharge was imposed, and thus whether there would in fact be an under-recovery. DuPont's witness asserts that the fuel cost was being recovered in the Rail Cost Adjustment Factor that railroads use to adjust their rates. DuPont Reb. V.S. of Crowley at 15-16.

<sup>33</sup> DuPont Reb. at 24-25.

In this case, we do not believe that the presence or absence of a fuel surcharge would be an appropriate selection criterion for the comparison group. In Rail Fuel Surcharges, we addressed the fuel surcharge programs then used by CSXT and other rail carriers, in which the surcharge was computed as a percentage of the base rate. We explained that, because railroads rely on differential pricing, under which rate levels can be dependent on factors other than costs, a surcharge that is tied to the level of the base rate cannot fairly be described as merely a cost recovery mechanism. Rail Fuel Surcharges at 6. We explained that two shippers' traffic may use an identical amount of fuel, but if one started out with a higher base rate (because it is captive), it would pay dramatically more in fuel surcharges. In those circumstances, the fuel surcharge program could be forcing captive shippers with higher base rates to cross-subsidize the fuel costs of shippers with lower base rates. Accordingly, we found the fuel surcharge programs in place at that time to be an unreasonable practice and directed the carriers to modify their programs.

Here, if we were to compare the issue movements to a comparison group comprised solely of movements with a fuel surcharge that was calculated as a percentage of the base rate, the comparison groups (composed of potentially captive traffic with high base rates) could reflect a collective over-recovery of fuel costs. Because we concluded that captive traffic that was incurring these surcharges was likely cross-subsidizing the fuel costs of other, non-captive traffic, the railroad is effectively arguing here for the comparison groups to be limited to movements that are cross-subsidizing the fuel costs of other movements. We conclude that comparison groups that consist of movements both with and without a fuel surcharge provide a better aggregate picture of the reasonable contribution to joint and common costs that the issue movements should bear.<sup>34</sup> Accordingly, we use DuPont's comparison groups in our analysis.

## **B. RSAM and R/VC<sub>>180</sub> Benchmarks**

The R/VC<sub>>180</sub> benchmark measures the average markup over variable cost currently earned by the defendant railroad on its potentially captive traffic. The RSAM benchmark measures the average markup above variable cost that the carrier would need to charge its potentially captive traffic to meet its revenue needs. In accordance with Simplified Standards, we use the following formula to calculate RSAM:

$$\text{RSAM} = (\text{REV}_{>180} + \text{REV}_{\text{short/overage}}) \div \text{VC}_{>180}$$

where REV<sub>>180</sub> is an estimate of the total revenue earned by the carrier on potentially captive traffic, and VC<sub>>180</sub> is an estimate of the total variable costs of the railroad to handle that traffic. (The confidential Waybill Sample is used to estimate these components.) To calculate RSAM, we add to the numerator the carrier's revenue shortfall (or subtract any overage) as shown in our annual revenue adequacy determination (REV<sub>short/overage</sub>). In applying the Three-Benchmark approach, the ratio of the two benchmarks is used to adjust the R/VC ratios of the selected

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<sup>34</sup> We offer no opinion on whether this might be a more reasonable selection criteria in future cases where the movements in the Waybill Sample are subject to a different fuel surcharge program.

comparison group. Thus, the relationship between RSAM and  $R/VC_{>180}$  serves as a revenue need adjustment factor, when applied to comparison group movements, to reflect demand-based differential pricing principles.<sup>35</sup>

The RSAM and  $R/VC_{>180}$  benchmarks are published annually by the Board. In this case, the parties used the benchmark figures for the years 2002 through 2005, which were published in Rate Guidelines—Non-Coal Proceedings, STB Ex Parte No. 347 (Sub-No. 2) (STB served Apr. 25, 2006). Both parties ask us to modify those published figures here.

CSXT argues that the RSAM benchmarks are too low because the RSAM formula fails to incorporate the effect of taxes. As observed by CSXT, the RSAM formula proposed and adopted in Simplified Standards uses a revenue shortfall ( $REV_{\text{short/overage}}$ ) that is calculated on an after-tax basis, while  $REV_{>180}$  is calculated on a pre-tax basis.<sup>36</sup> CSXT argues that the RSAM calculation must take into account not just the additional revenue that a carrier would need to earn to achieve revenue adequacy, but also the taxes it would need to pay on that revenue. CSXT proposes that we change the RSAM formula to use a pre-tax revenue shortfall that includes both state taxes and the statutory federal tax rate of 35%, which would raise the RSAM benchmark.

In contrast, DuPont argues that the RSAM benchmarks are too high, because they rely on the Board's cost-of-capital calculations for 2002 through 2005, which DuPont argues are overstated. We have recently changed the methodology used to calculate the rail industry's cost of capital, adopting a Capital Asset Pricing Model (CAPM) for the 2006 cost-of-capital determination.<sup>37</sup> DuPont contends that we should recalculate RSAM to reflect the new cost-of-capital methodology in this case. It argues that all of the inputs to develop a cost of capital based on the new methodology are readily available and easy to apply and that the cost of capital is central to the calculation of RSAM and  $R/VC_{>180}$ .

We note that, paradoxically, each party objects to the other's proposed changes to RSAM as inappropriate to make in the context of an individual rate case handled under the Simplified Standards. The Simplified Standards are designed to sacrifice some precision in the rate analysis in order to have an expedited, simplified, and less costly process to resolve smaller rail rate disputes. DuPont notes that CSXT did not point out the tax problem with RSAM during the four rounds of pleadings in Simplified Standards, in which the Board considered changes to its RSAM methodology.<sup>38</sup> Thus, DuPont argues that if CSXT wishes to challenge the RSAM

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<sup>35</sup> See Rate Guidelines—Non-Coal Proceedings, 1 S.T.B. 1004, 1042 (1996).

<sup>36</sup> CSXT Open. at 24-26.

<sup>37</sup> See Methodology to be Employed in Determining the Railroad Industry's Cost of Capital, STB Ex Parte No. 664 (STB served Jan. 17, 2008).

<sup>38</sup> CSXT seeks to excuse its failure to draw this issue to the Board's attention in the rulemaking proceeding due to a lack of access to the Board's workpapers. CSXT Reb. at 30-31. However, the Board made it clear at the outset of that proceeding that the RSAM proposal would use a revenue shortfall ( $REV_{\text{short/overage}}$ ) that would be calculated on an after-tax basis. See Simplified Standards for Rail Rate Cases, STB Ex Parte No. 646 (Sub-No. 1), slip op. at 24 (STB (continued . . .))

methodology, it may only do so in a petition to reopen Simplified Standards.<sup>39</sup> Similarly, CSXT argues that DuPont's proposed recalculation would constitute a retroactive application of the new cost-of-capital method and that an individual rate case, particularly one handled under the streamlined procedures of Simplified Standards, is not the proper forum to consider such a far-reaching change.

DuPont also objects to the manner in which CSXT proposes to change the RSAM benchmarks. CSXT would use the statutory tax levels. DuPont argues that RSAM should be adjusted using CSXT's "effective tax rate," i.e., the level of taxes that CSXT actually pays.<sup>40</sup> DuPont further argues that there is a countervailing adjustment that should also be made. It claims that URCS overstates the tax component in the variable costs of movements because it includes a cost for taxes based on the statutory tax rate, not the carrier's effective rate. DuPont argues that this overstatement results in too few movements being shown to have R/VC ratios greater than 180% and that it affects both the RSAM and R/VC<sub>>180</sub> benchmarks.<sup>41</sup>

It appears that the changes proposed by the parties would largely offset each other. However, even if that were not the case, we would not make any adjustments here, as this is not the proper forum for collateral attacks on the Board's methodology. The Three-Benchmark method was intended to serve as a simplified and expedited tool to evaluate the reasonableness of a challenged rate based on the Board's existing measures of the rail industry. The hallmark of this approach is the reliance on prior Board findings to expedite and simplify the rate reasonableness determination. Two of the three key benchmarks are pre-determined by the agency on an annual basis. Those benchmarks in turn rely on our annual cost-of-capital and revenue-adequacy determinations. We also rely on use of our Uniform Rail Costing System and data from the STB Carload Waybill Sample (Waybill Sample).<sup>42</sup> Considerable effort is expended by this agency in making each of these findings, and by doing much of the work in advance (and then relying on those findings in the Three-Benchmark approach), we offer shippers with smaller rate disputes a practical means of obtaining expedited relief.

Making the adjustments proposed by the parties would go well beyond the intended scope of an individual simplified rate proceeding. The complexity of allowing the parties to

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(. . . continued)

served July 28, 2006) (illustrating the RSAM proposal for one carrier); Simplified Standards for Rail Rate Cases, STB Ex Parte No. 646 (Sub-No. 1), slip op. at 4 (STB served Oct. 20, 2006) (Table 1) (illustrating RSAM proposal for all Class I carriers). Moreover, since it was originally adopted in 1996, the RSAM formula has never addressed taxes, and CSXT has had over a decade to present its proposal to the agency for broader consideration.

<sup>39</sup> DuPont Reply at 34.

<sup>40</sup> Id. at 35, V.S. of Crowley at 34-35.

<sup>41</sup> DuPont Reply at 36; V.S. of Crowley at 35-36.

<sup>42</sup> The Waybill Sample is a stratified sample of carload waybills for terminated shipments by railroad carriers.

litigate the appropriate methodologies to be applied in an individual proceeding (such as challenging prior Board findings on issues like the cost of capital, revenue adequacy, or RSAM; challenging the information contained in the Waybill Sample; or challenging the URCS model) would quickly consume the cases and inevitably lead to protracted litigation. Accord Simplified Standards at 84 (no evidence on movement-specific adjustments to URCS allowed); at 22 (no evidence of product or geographic competition allowed); at 83 (evidence on comparability must be drawn only from the Waybill Sample or other publicly available sources).

The proper forum for considering these methodological issues is in an appropriate rulemaking proceeding, where we can obtain the benefit of broader public input.<sup>43</sup> Accordingly, we have instituted a rulemaking proceeding, in STB Ex Parte No. 646 (Sub-No. 2), to obtain public comments on whether and how to change the RSAM formula to reflect taxes. In the meantime, we will use the formula adopted in Simplified Standards.

It would be premature to initiate a rulemaking to consider the cost-of-capital issue raised by DuPont. The changes proposed by DuPont are premised on using CAPM alone. However, we are currently in the process of exploring whether to instead use an average of the CAPM figure and a multi-stage discounted cash flow (DCF) model.<sup>44</sup>

For all of these reasons, we rely here on the RSAM and  $R/VC_{>180}$  benchmark calculations as published in Rate Guidelines—Non-Coal Proceedings, STB Ex Parte No. 347 (Sub-No. 2) (STB served Apr. 25, 2006).

### C. Rate Reasonableness Presumption

Having selected DuPont's comparison group through the final-tender process described above, we adjust each movement in the comparison group by the ratio of  $RSAM \div R/VC_{>180}$ .<sup>45</sup> The adjusted R/VC ratios of the comparison groups are illustrated below.<sup>46</sup>

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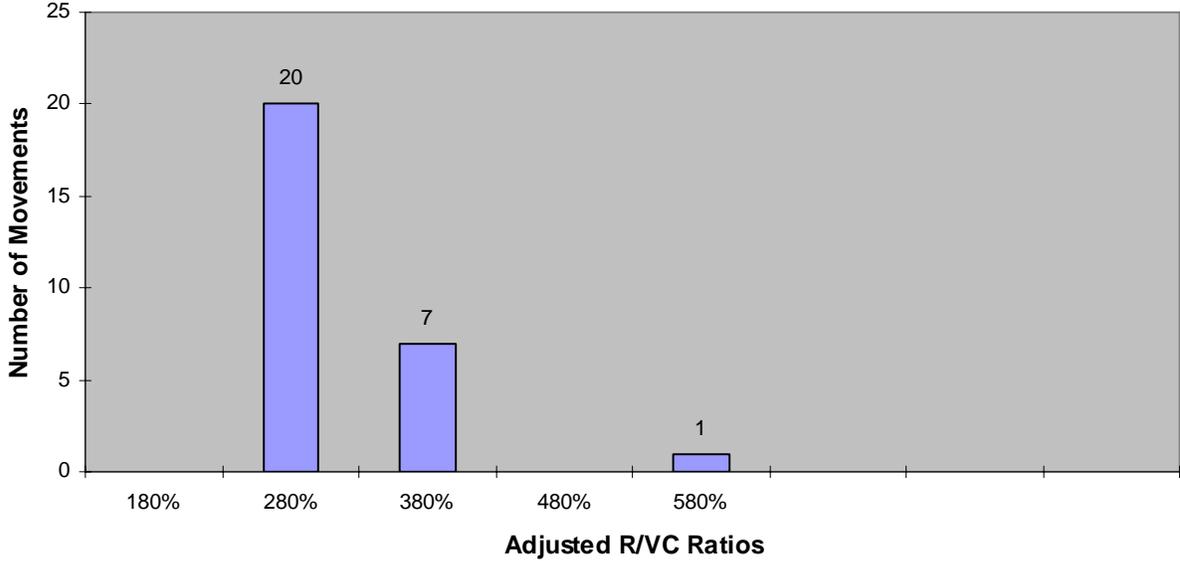
<sup>43</sup> CSXT contends that it is appropriate to make its proposed adjustment to RSAM here because "it simply seeks to correct an inadvertent error in the calculation of the RSAM," in contrast to DuPont's proposal, which "would make wholesale organic changes to the RSAM." CSXT Reb. at 31 n.24. We do not agree with CSXT's characterization of its own proposal. This is not a simple mathematical error in the implementation of the RSAM formula adopted in Simplified Standards. Rather, CSXT proposes that we use a *different* RSAM formula, one that increases the shortfall to include taxes.

<sup>44</sup> See Use Of A Multi-Stage Discounted Cash Flow Model In Determining The Railroad Industry's Cost Of Capital, STB Ex Parte No. 664 (Sub-No. 1) (STB served Feb. 11, 2008).

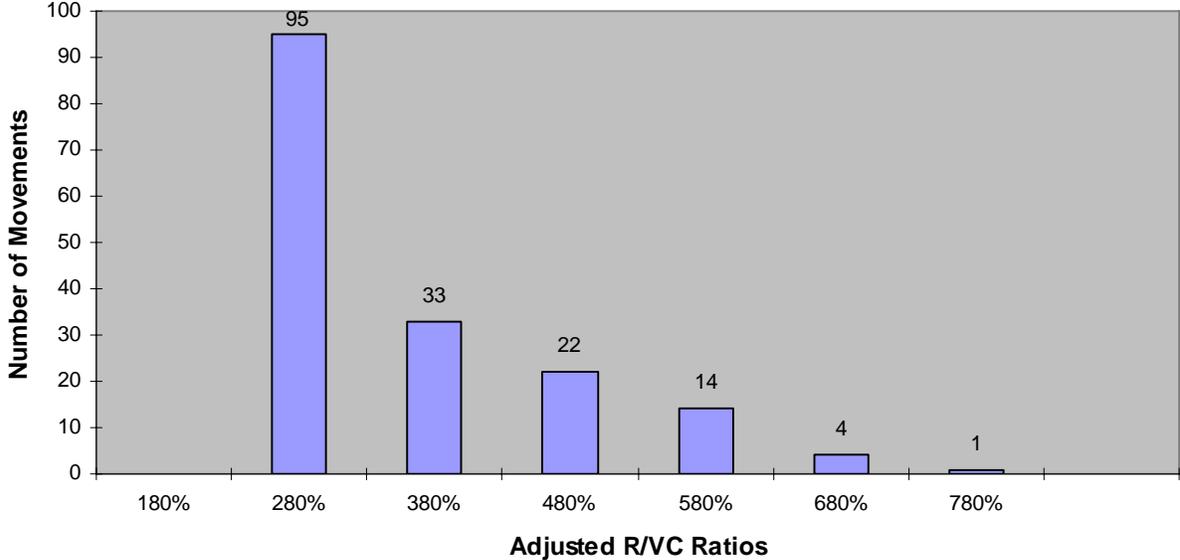
<sup>45</sup> In this case,  $RSAM \div R/VC_{>180}$  equals 1.24.

<sup>46</sup> The histograms count the number of data points between the current bin number and the adjoining higher bin. A number is counted in a particular bin if it is equal to or less than the bin label. All values below the first bin value label are counted together, as are the values above the last bin value label.

### Niagara Falls to New Johnsonville Comparison Group



### Niagara Falls to Carneys Point Comparison Group



We then calculate the mean and standard deviation of the R/VC ratios for the adjusted comparison groups (weighted in accordance with the proper sampling factors). In this case, the mean R/VC ratio of the 28 movements in the adjusted comparison group for the Niagara Falls movement is 274% R/VC and the standard deviation is 0.520. The mean R/VC ratio of the 169 movements in the adjusted comparison group for the Carneys Point movement is 311% R/VC and the standard deviation is 1.058.

Using the mean ( $R/VC_{COMP}$ ) and standard deviation ( $S$ ) of the adjusted comparison groups, along with the number of movements in the comparison groups ( $n$ ), the upper boundary of a reasonable confidence interval around the estimate of the mean is derived as follows:<sup>47</sup>

$$\text{upper boundary} = R/VC_{COMP} + t_{n-1} \times (S \div (n-1)^{1/2})$$

This confidence interval is a function of the number of movements in the comparison groups and the standard deviation of those adjusted R/VC ratios. In this case, the upper boundaries are 287% R/VC for the Niagara Falls movement and 321% R/VC for the Carneys Point movement. As the challenged rates are above these boundaries, they are presumed unreasonable and, absent any “other relevant factors,” the maximum lawful rates will be prescribed at those levels.

#### **D. Other Relevant Factors**

Under the Three-Benchmark method, either party may submit evidence of “other relevant factors” to demonstrate that the maximum lawful rate should be higher or lower. Parties are required to quantify the impact of these “other relevant factors” on the maximum lawful rate.<sup>48</sup>

In this case, both parties introduced evidence of “other relevant factors” they submit should lower (according to DuPont) or raise (according to CSXT) the maximum lawful rate level. Their evidence is discussed below.

##### **1. Regulatory Lag**

CSXT would have us take into account the regulatory lag between the 2002-2005 Waybill Sample data and the challenged 2007 rates by adjusting the Waybill Sample R/VC levels to 2007 levels. CSXT maintains that this adjustment is necessary because of significant

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<sup>47</sup> This formula for a confidence interval around a mean can be found in most statistics textbooks. We use a “one-sided” hypothesis test, such that we can have 90% confidence as to whether the challenged rate exceeds a reasonable norm. A 90% confidence interval is a standard level of confidence used in statistical analysis. The parameter  $t_{n-1}$  will range from 3.078 to 1.28 depending on the number of movements in the comparison group. In this case, the parameter  $t_{n-1}$  equals 1.29 for the Carneys Point movement and 1.31 for the Niagara Falls movement.

<sup>48</sup> CSXT asks that the Board consider the liability associated with a catastrophic accident involving chlorine in assessing the reasonableness of its rates, but CSXT does not quantify this liability or how it should affect its rates. Therefore, it cannot be considered as another relevant factor under Simplified Standards.

market changes and dynamics (including increasing demand and tightening capacity) and railroad cost inflation for shipments of chemical traffic that have occurred over the last 5 years. CSXT would have us adjust revenues by publicly available data or, alternatively, by using current revenue information for chemicals traffic produced during discovery. It would have us adjust costs by using publicly available data and the indexing methods used in stand-alone cost cases. CSXT's proposed adjustments would have the effect of raising the R/VC ratios in the comparison groups. DuPont objects to these proposed adjustments.

In Simplified Standards, at 84-85, we addressed the issue and discussed problems associated with making adjustments to the comparison group's R/VC ratios to account for the lag in the data. First, we explained that in an R/VC ratio, price levels in the economy are reflected both in the numerator and denominator. Thus, the effects of price shifts on revenues should be largely offset by inflationary increases in costs, leaving the R/VC ratios generally unaffected. Moreover, the expansion ratio ( $RSAM \div R/VC_{>180}$ ) will also reflect price shifts, creating an offsetting effect to any rate increase or decrease that could be attributable to regulatory lag.

We note that, even though it would adjust the R/VC ratios in the comparison group, CSXT would apply the expansion ratio ( $RSAM \div R/VC_{>180}$ ) based on the 2002-2005 cost and revenue data. But if one were to apply similar adjustments to the R/VC ratios in the expansion ratio, RSAM (the numerator) would likely decrease. That is because a carrier with higher R/VC ratios from competitive traffic would require less revenue from its potentially captive traffic to achieve revenue adequacy. On the other hand, the  $R/VC_{>180}$  benchmark (the denominator) would likely increase as a result of the higher R/VC ratios. Thus, CSXT's proposed adjustments that would lead to higher R/VC ratios in the comparison group, indexed to 2007 levels, should also produce a lower expansion ratio.<sup>49</sup>

We expressed concerns about an apple-to-oranges adjustment in Simplified Standards (at 84-85). Consider a hypothetical example where a carrier was revenue adequate in 2006, such that the  $RSAM \div R/VC_{>180}$  ratio shows the carrier earning 5% more from its potentially captive traffic than would be needed to earn adequate revenues in that time period. In that situation, the expansion ratio would serve to reduce the R/VC ratios of the comparison group in 2006 by 5% to more accurately reflect reasonable rates. Assume further that the carrier had increased all revenues by 10% between 2006 and 2007. It does not follow that the comparison group R/VC ratios should be adjusted upward by 10%, as those R/VC ratios would already provide the carrier more than needed to achieve adequate revenues in 2006 and there is no evidence to suggest that higher rates would be proper. In fact, in this hypothetical, the evidence would suggest that an opposite adjustment should be made. That is, if a revenue adequate carrier had been raising

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<sup>49</sup> CSXT argues that adjusting the R/VC ratios of the comparison group to reflect 2007 levels would have only a *de minimis* effect on the benchmarks because its chlorine-only comparison group reflects a very small percentage of its overall traffic and therefore does not have a significant impact on how adequate its revenues are overall. See CSXT Reb. at 46. But the Board's annual revenue adequacy determinations and the RSAM and  $R/VC_{>180}$  benchmarks are system-wide measurements that change year to year. And CSXT admits that it was not able to calculate accurately updated benchmarks. See CSXT Reb. at 41.

rates, then it would need less (not more) differential pricing of potentially captive traffic. When the 2007 information becomes available, the RSAM and R/VC<sub>>180</sub> benchmarks for 2007 would change accordingly and suggest that the comparison group R/VC levels should be adjusted downward, not upward as sought by the carrier.

Because CSXT's proposed adjustment would be incomplete, the maximum rate level based on this adjustment would be too high. Accordingly, CSXT has failed to meet its burden of demonstrating that its proposed adjustment is appropriate.

## 2. *Managerial Inefficiency*

DuPont argues that we should adjust the presumed maximum rate downward to give due consideration to the "Long-Cannon" factors at 49 U.S.C. 10701(d)(2)(A)-(C), particularly: (1) the amount of traffic which is transported at revenues which do not contribute to going concern value; and (2) the amount of traffic which contributes only marginally to fixed costs and the extent to which rates on such traffic can be changed to maximize the revenues from that traffic.<sup>50</sup> Specifically, DuPont would have us apply the efficiency adjustment described in Rate Guidelines—Non-Coal Proceedings, 1 S.T.B. 1004, 1027-1030 (1996) (Simplified Guidelines), to exclude from the RSAM calculation the revenue shortfall from traffic with an R/VC ratio below 100%.<sup>51</sup> CSXT maintains that DuPont has not justified such an RSAM adjustment as an "other relevant factor," citing BP Amoco Chemical Company v. Norfolk Southern Railway Company, STB Docket No. 42093 (STB served June 6, 2005) and the Notice of Proposed Rulemaking in Simplified Standards for Rail Rate Cases, STB Ex Parte No. 646 (Sub-No. 1) (STB served July 28, 2006).<sup>52</sup>

However, URCS is not a measure of short-run variable costs or the marginal cost of hauling rail traffic. Rather, it is a measure of intermediate variable costs, on a system-average basis, that includes costs (such as return on road property investment) that are fixed in the short term. Thus, an R/VC ratio below 100% does not necessarily reflect improper pricing or a money-losing service. See Simplified Guidelines at 1028. Competition from other railroads or other modes of transportation may force a carrier to price traffic below the measure of long-run variable costs from URCS.

DuPont argues that, as carriers are nearing capacity, there should no longer be any traffic with a revenue contribution below variable cost as calculated by URCS. Whether or not that is the case, the mere fact that a movement may be priced below URCS variable costs—an intermediate/long-run variable cost measure—does not mean that the revenues from the movement do not contribute to going concern value, which is a short-run cost measure.

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<sup>50</sup> DuPont Open. at 26-28.

<sup>51</sup> Id.

<sup>52</sup> CSXT Reply at 49-51.

By treating all movements with revenue below URCS variable costs as resulting from managerial inefficiency on the part of CSXT, DuPont has vastly overstated the likely degree of such pricing inefficiency. Accordingly, DuPont has failed to meet its burden of demonstrating that its proposed adjustment is appropriate.

### **E. Maximum Rate Determination**

As neither party has carried its burden of demonstrating “other relevant factors” to raise or lower the presumptive maximum lawful rates, we will prescribe the maximum lawful rates for the Niagara Falls and the Carneys Point movements at the levels produced by the formula which in this case are R/VC ratios of not more than 287% and 321%, respectively. The variable cost of these challenged movements must be calculated in accordance with Simplified Standards at 26, 84 (with no movement-specific adjustments to URCS).<sup>53</sup>

CSXT is ordered to reimburse DuPont for amounts previously collected above the prescribed levels, together with interest to be calculated in accordance with 49 CFR 1141. CSXT is also ordered to establish and maintain rates for the Niagara Falls and Carneys Point movements that do not exceed the maximum reasonable rates prescribed in this decision.

The record does not provide the data needed to calculate the total amount of reparations due to the shipper for past shipments. Following our standard practice in such circumstances, the parties are to calculate the total amount of reparations and interest due in accordance with this decision. If they cannot agree, the parties should bring the dispute to our attention for prompt resolution.

### **F. Limit on Relief**

Cases that proceed under the Three-Benchmark method are limited to \$1 million in total rate relief over a 5-year period. Simplified Standards at 26-33. This limit applies to the difference between the challenged rate and the maximum lawful rate, whether in the form of reparations, a rate prescription, or a combination of the two. Accordingly, the rate prescription set in this decision will automatically terminate once DuPont has received the \$1 million of relief. (The length of the prescription may be less than 5 years if the limit on relief is reached in a shorter time.) DuPont will be barred from bringing another complaint against the same rate for the remainder of the 5-year period.<sup>54</sup>

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<sup>53</sup> For purposes of calculating the variable cost of the issue movements, we use actual mileage (as used by the carrier), not the mileage from the “PC\*Miler|Rail” program (as used by the shipper).

<sup>54</sup> CSXT argues that the potential recovery should be distributed evenly over the 5-year period, lest DuPont obtain \$1 million in relief in the early years, then switch the source of its product and challenge that rate as unreasonable. CSXT Reb. at 3-4. That would be inconsistent with Simplified Standards, at 28. Should DuPont re-source this product, CSXT may argue at that time that any rate complaint challenging the rate for the re-sourced product should be barred or brought under a more sophisticated rate standard.

Once the rate relief is exhausted, CSXT's rate-making freedom will be restored, with a regulatory safe harbor at the level of the challenged rate for the remainder of the 5-year period, with appropriate adjustments for inflation using the rail cost adjustment factor, that is adjusted for productivity (RCAF-A).<sup>55</sup> If, however, CSXT establishes a new common carrier rate once the rate prescription expires, and the new rate exceeds the inflation-adjusted challenged rate, DuPont may bring a new complaint against the higher rate.

This action will not significantly affect either the quality of the human environment or the conservation of energy resources.

It is ordered:

1. Defendant shall, within 60 days, establish and maintain rates for the Niagara Falls and Carneys Point movements that do not exceed the maximum reasonable rates prescribed by this decision.
2. Defendant shall pay reparations and interest, in accordance with this decision, for all shipments moving after the expiration of the contract between the parties and prior to the establishment of a reasonable rate pursuant to paragraph 1.
3. This decision is effective on the date of service.

By the Board, Chairman Nottingham, Vice Chairman Mulvey, and Commissioner Buttrey.

Anne K. Quinlan  
Acting Secretary

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<sup>55</sup> See Railroad Cost Recovery Procedures, 5 I.C.C.2d 434 (1989), aff'd sub nom. Edison Elec. Institute v. I.C.C., 969 F.2d 1221 (D.C. Cir. 1992).